**IN THE CLAIMS:**

Please cancel Claims 1-22, and substitute therefor new Claims 43-70.

Claims 1-22 (Canceled)

Claims 23-42 (Previously Canceled)

43. (New) A method of providing hazardous incident decision support and training, comprising:

acquiring observed signs and symptoms data from a user interface, wherein said data is input by a user to describe a given situation or condition which may or may not be associated with a hazardous incident;

acquiring agent characteristic data from records in a database, wherein each record includes data representative of a known hazardous agent; and

performing an initial agent identification by comparing the observed signs and symptoms acquired from the user interface with the agent characteristics data for each record in the database.


44. (New) The method of claim 43, wherein said observed signs data includes one or more of color, odor, chemical reaction, dispersion devices, explosive event, property damage, dead animals, or absence of signs, and wherein said observed symptoms data includes one or more of nausea, headache, tunnel vision, chest pain, vomiting, runny nose, reddish skin, or absence of symptoms.


45. (New) The method of claim 43, wherein the comparison of the observed signs and symptoms data with the agent characteristic data for each record in the database, further

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includes assigning a unit value to each of the observed signs and symptoms data that match the agent characteristic data and performing a summation of the assigned unit values to obtain a relative score for each record in the database.

46. (New) The method of claim 45, wherein the comparison of the observed signs and symptoms data with the agent characteristic data for each record in the database, further includes multiplying each assigned unit value by a weight factor before performing the summation of assigned unit values to obtain a relative score.

47. (New) The method of claim 46, wherein the observed signs and symptoms data includes time-to-onset data.

48. (New) The method of claim 47, wherein the comparison of the observed signs and symptoms data with the agent characteristic data for each record in the database, further includes subtracting a value from the relative score for each observed sign and symptom that does not have a match in the corresponding database record.

49. (New) The method of claim 48, further including acquiring sensor input data, and performing an improved agent identification using the acquired sensor data.

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50. (New) The method of claim 48, further including acquiring sampling data, and performing an improved agent identification using the acquired sampling data.

51. (New) The method of claim 43, wherein said performing an initial agent identification by comparing the observed signs and symptoms acquired from the user interface with the agent characteristics data for each record in the database comprises using the following algorithm: Agent Identification = Max [$W_1$ • (number of matched Signs) + $W_2$ • (number of matched Symptoms) + $W_3$ • (number of matched Times-of-Onset) − $W_4$ • (number of Mismatches)], wherein W represents the relative weights given to corresponding matches or mismatches, and Max represents a process in which the result or score obtained from applying the foregoing algorithm to each record in said database is evaluated to determine the record with the greatest numerical value.

52. (New) The method of claim 43, wherein said performing an initial agent identification by comparing the observed signs and symptoms acquired from the user interface with the agent characteristics data for each record in the database comprises using the following algorithm: Agent Identification = Max [$W_1$ • (number of matched Signs) + $W_2$ • (number of matched Symptoms) + $W_3$ • (number of matched Times-of-Onset) − $W_4$ • (number of Mismatches) + $W_5$ • (Sensor Input) + $W_6$ • (Sampling Data)], wherein W represents the relative weights given to corresponding matches or mismatches, and Max represents a process in which the result or score obtained from applying the foregoing algorithm to each record in said database is evaluated to determine the record with the greatest numerical value.

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53. (New) The method of claim 43, wherein said performing an initial agent identification by comparing the observed signs and symptoms acquired from the user interface with the agent characteristics data for each record in the database comprises using the following algorithm: Agent Identification = Max $[W_1 \cdot$ (number of matched Signs) + $W_2 \cdot$ (number of matched Symptoms) + $W_3 \cdot$ (number of matched Times-of-Onset) – $W_4 \cdot$ (number of Mismatches) + $W_5 \cdot$ (Sensor Input) + $W_6 \cdot$ (Sampling Data) + $W_7 \cdot$ (Time Data) + $W_8 \cdot$ (Intelligence) + $W_9 \cdot$ (Number of Casualties) + $W_{10} \cdot$ (Distribution of Casualties) + $W_{11} \cdot$ (MET Data)], wherein W represents the relative weights given to corresponding matches or mismatches, and Max represents a process in which the result or score obtained from applying the foregoing algorithm to each record in said database is evaluated to determine the record with the greatest numerical value.

54. (New) The method of claim 48, further including providing training information and queries.

55. (New) A method for providing hazardous incident decision support and training, comprising:

acquiring a situation definition from a user interface, wherein said interface permits user input of data to describe a given situation or condition which may or may not be associated with a hazardous incident;

acquiring time data from a clock; and

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performing a time-dependent hazard assessment in response to the situation definition and time data, wherein the time-dependent hazard assessment is updated with elapsed time.

56. (New) The method of claim 55, wherein said data comprises time and content of 911 calls, the onset and nature of observed signs and symptoms if any, environmental conditions, the occurrence of an observed event, the time of occurrence, meteorological conditions, hazard source, hazard location, and statements from first responders or witnesses.

57. (New) The method of claim 56, wherein said observed signs data includes one or more of color, odor, chemical reaction, dispersion devices, explosive event, property damage, dead animals, or absence of signs, and wherein said observed symptoms data includes one or more of nausea, headache, tunnel vision, chest pain, vomiting, runny nose, reddish skin, or absence of symptoms.

58. (New) The method of claim 55, further including acquiring a hazard dose and determining an occupational safety factor as a function of time, wherein the occupational safety factor is determined by integration of the hazard dose over time.

59. (New) The method of claim 58, further including acquiring a safety limit, and performing a comparison of the occupational safety factor with the safety limit.

60. (New) The method of claim 59, further including providing a warning when the occupational safety factor exceeds the safety limit.

61. (New) The method of claim 60, further including acquiring a time limit and operational start time, and maintaining a comparison of the operational elapsed time with the time limit wherein the operation elapsed time is determined as the difference between the time acquired from the clock and the operational start time.

62. (New) The method of claim 61, further including providing a warning when the operational time exceeds the time limit.

63. (New) The method of claim 62, further including providing training information and queries.

64. (New) A system for providing hazardous incident decision support and training, comprising:

   a user interface component operative to receive a situation definition;

   a clock; and

   a time-dependent hazard assessment component responsive to the situation definition and clock.

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65. (New) The system of claim 64, wherein the user interface component is operative to receive observed signs and symptoms data.

66. (New) The system of claim 65, wherein said observed signs data includes one or more of color, odor, chemical reaction, dispersion devices, explosive event, property damage, dead animals, or absence of signs, and wherein said observed symptoms data includes one or more of nausea, headache, tunnel vision, chest pain, vomiting, runny nose, reddish skin, or absence of symptoms.

67. (New) The system of claim 65, wherein the time-dependent hazard assessment component includes a database of signs and symptoms representative of known agents, and a comparator operative to compare the observed signs and symptoms data obtained from the user interface with the database of signs and symptoms representative of known agents.

68. (New) The system of claim 67, further comprising a sensor for obtaining agent detection data, an input means for obtaining sampling data, and an agent identification component responsive to the sensor and input means for performing an agent identification.

69. (New) The system of claim 68, further including a hazard source assessment responsive to the agent identification component for providing concentration versus time predictive data.

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70. (New) The system of claim 69, further including a decision aid component operative to provide decision advice and decision prompts in response to the situation definition and time-dependent hazard assessment, wherein decision data are obtain through user response to the decision prompts.

71. (New) The system of claim 70, further including a training component response to the user interface component, clock, and time-dependent hazard assessment component.